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| APPLICATION NO.  | FILING DATE    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|--|----------------|----------------------|-------------------------|------------------|--|
| 09/889,427   | 07/18/2001     | Gerhrad Pfaff        | MERCK-2281              | 4109             |  |
| 23599 7  | 590 05/09/2003 |                      |                         |                  |  |
| MILLEN, WHITE, ZELANO & BRANIGAN, P.C.<br>2200 CLARENDON BLVD. |                |                      | EXAMINER                |                  |  |
| SUITE 1400   |                | YOON, TAE H          |                         |                  |  |
| ARLINGTON,   | VA 22201       |                      | ART UNIT                | PAPER NUMBER     |  |
|  |                |                      | 1714                    |                  |  |
|  |                |                      | DATE MAILED: 05/09/2003 |                  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

| 7 A   | Application No  | ).<br>'                                | Applicant(s)                                       | DC oc 1  | _0                       |
|---|---|--|--|--|--------------------------|
| Office Action Summary   | 27/801,9  | <del>127</del>                         | (  | rtaff er   | a                        |
|   | Examiner  | 1/5                                    | 8h   | Group Art Unit   |                          |
| The MAII ING DATE of this communication cannot  |   | 700                                    |  | 1//  | 1                        |
| -The MAILING DATE of this communication appear  | ars on the cover s  | neet bei                               | neath th co  | orrespondence a  | ddress —                 |
| P riod for Reply  |   | ר ב אל גד                              |  |  |                          |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET<br>OF THIS COMMUNICATION.   | TO EXPIRE $-71$   | TKEE                                   | MONTH(S  | 6) FROM THE MA   | ILING DATE               |
| <ul> <li>Extensions of time may be available under the provisions of 37 Cl from the mailing date of this communication.</li> <li>If the period for reply specified above is less than thirty (30) days,</li> <li>If NO period for reply is specified above, such period shall, by def</li> <li>Failure to reply within the set or extended period for reply will, by</li> <li>Any reply received by the Office later than three months after the term adjustment. See 37 CFR 1.704(b).</li> </ul> | a reply within the statu<br>ault, expire SIX (6) MO<br>statute, cause the app | tory minir<br>NTHS fror<br>lication to | mum of thirty (3<br>m the mailing d<br>become ABAI | 30) days will be consi<br>late of this communic<br>NDONED (35 U.S.C. 8 | dered timely,<br>cation. |
| status  | . 1 /   | <b>)</b>                               |  |  |                          |
| Responsive to communication(s) filed on $4-1-6$   | os, election  | 57                                     |  |  | ·                        |
| ☐ This action is <b>FINAL.</b>  |   |  |  |  |                          |
| ☐ Since this application is in condition for allowance exce<br>accordance with the practice under <i>Ex parte Quayle</i> , 19   | ept for formal matte<br>935 C.D. 1 1; 453 O                                   | ers, <b>pros</b><br>.G. 213.           | ecution as t                                       | to the merits is c   | losed in                 |
| isposition of Claims  |   |  |  |  |                          |
| Claim(s) / -/2  | <u> </u>  |  | is/are p   | ending in the app  | lication.                |
| Claim(s) / -/2 Of the above claim(s) 5  | is/are v  | is/are withdrawn from consideration.   |  |  |                          |
| □ Claim(s)  | is/are a  | llowed.                                |  |  |                          |
| X Claim(s) /-4 and 9-/2   | is/are n  | is/are rejected.                       |  |  |                          |
| □ Claim(s)  |   |  | is/are o   | bjected to.  |                          |
| ☐ Claim(s)  |   |  |  | ject to restriction  | or election              |
| pplication Papers   |   |  | require  |  |                          |
| ☐ The proposed drawing correction, filed on   | = =   |  | ☐ disapprove                                       | ed.  |                          |
| ☐ The drawing(s) filed on is/are obj  | ected to by the Exa   | aminer                                 |  | ,  |                          |
| ☐ The specification is objected to by the Examiner.   |   |  |  |  |                          |
| ☐ The oath or declaration is objected to by the Examiner.   |   |  |  |  |                          |
| riority under 35 U.S.C. § 119 (a)-(d)   |   |  |  |  |                          |
| Acknowledgement is made of a claim for foreign priority   | under 35 U.S.C. §   | 119 (a)-                               | (d).   |  |                          |
| All □ Some* □ None of the:  |   |  |  | •  |                          |
| Certified copies of the priority documents have been  |   |  |  |  |                          |
| ☐ Certified copies of the priority documents have been  |   |  |  | •  |                          |
| Copies of the certified copies of the priority docume<br>in this national stage application from the Internation  |   |  | w  |  |                          |
| *Certified copies not received:   |   | •                                      |  |  |                          |
| tachment(s)   |   |  |  |  | <del></del> •            |
|   | 14 C  |  |  |  |                          |
| Nationalian Disclasions Otata   | VO(S)   | □ Inte                                 | ervi w Sumn  | nary, PTO-413  |                          |
| Information Disclosure Statement(s), PTO-1449, Paper N  | · · <del> </del>  |  |  |  |                          |
| Information Disclosure Statement(s), PTO-1449, Paper Notice of Reference(s) Cited, PTO-892  D. Notice of Draftsperson's Patent Drawing Review, PTO-9  | ,   | □ No                                   | tice of Inform                                     | nal Pat nt Applica   | tion, PTO-152            |

U.S. Patent and Trademark Office PTO-326 (Rev. 11/00)

Part of Paper No. \_\_\_\_\_

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Applicant's election with traverse of Group I, claims 1-4 and 9-12, in Paper No. 6 is acknowledged. The traversal is on the ground(s) that there wouldn't be a serious burden on the examiner to examine two inventions. This is not found persuasive because the additional search and examination are serious burden on the examiner who has very limited time on each application. Also, applicant discloses that the instant pigments are known which are produced by different methods at page 1.

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The requirement is still deemed proper and is therefore made FINAL.

A separate claim reciting "(especially) for printing ----for the laser marking of plastices" of claim 10 is suggested.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 9 and 10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The recited "Use of" is non-statutory subject matter and "A method of using" is suggested.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Improper Multiple dependent claim format is recited, and the recited "Claims 1 and 2" should be "Claims 1 or 2".

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ormum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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Claims 1-4 and 9-12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 6,280,520. Although the conflicting claims are not identical, they are not patentably distinct from each other because high and low refractive index metal oxides of said patent encompass the instant materials and because the instantly recited "comprising" permits the presence of graphite of said patent and because the instantly recited substrate encompasses the instant second layer of a material having a refractive index of more than 1.8.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
  (e) (1) an application for patent, published under section 122(b), by another filed in the United

States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English

language; or

(2) a patent granted on an application for patent by another filed in the United States before

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the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a); or

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4 and 9-12 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over DE 198 02 234.

The recited substrate encompasses the recited second layer of a material having a refractive index of more than 1.8.

DE teaches multilayer nacreous pigments comprising a lamellar substrate such as Fe<sub>2</sub>O<sub>3</sub>, ZnO or TiO<sub>2</sub> which inherently possess a refractive index of more than 1.8, a first layer of a carboxy-containing ZrO<sub>2</sub> having a refractive index of 1.7 to 1.8, and a second layer of semitransparent metal at cols. 3-7 and in examples. The applications in various uses in lacquers, inks and plastics are taught at col. 11, lines 43-51. Plastics containing said pigments are inherently laser-markable, and the preamble alone has little probative value.

Thus, the instant invention lacks novelty.

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Claims 1-4 and 9-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Schmid et al (US 5,607,504 or EP 0 753 545).

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The examiner points out US'504, and the recited substrate encompasses the recited second layer of a material having a refractive index of more than 1.8.

Schmid et al teach multilayer nacreous pigments comprising layers (top to bottom) of a metal (copper or aluminum, col. 3, lines 54-62), a metal oxide (ZrO<sub>2</sub> or TiO<sub>2</sub>, col. 3, lines 1-2 and 36-44), a high refractive index oxide of Fe, Cr or Ti (col. 2, lines 49-59) and a low refractive index oxide of Si or Al (col. 2, lines 43-46). The applications in various uses in lacquers, inks and plastics are taught at col. 7, lines 44-51. The recited high and low refractive index oxides meet the instant refractive indices inherently since metal oxides are same. Plastics containing said pigments are inherently laser-markable, and the preamble alone has little probative value.

Thus, the instant invention lacks novelty.

Claims 1-4 and 9-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ash (US 4,434,010).

The examiner points out US'504, and the recited substrate encompasses the recited second layer of a material having a refractive index of more than 1.8.

Ash teaches multilayer nacreous pigments comprising layers of low and high index material at col. 6, lines 48-59 wherein titanium dioxide and silicon dioxide are seen. Silicon

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dioxide has low refractive index of 1.46 as taught at col. 8, lines 48-49, and said titanium dioxide

has a refractive index of more than 1.8 inherently. Ash also teaches a semitransparent metallic

layer at col. 2, line 30. The applications in various uses in inks and plastics are taught in Fig. 4.

Plastics containing said pigments are inherently laser-markable, and the preamble alone has little

probative value.

Thus, the instant invention lacks novelty.

Claims 1-4 and 9-12 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the

alternative, under 35 U.S.C. 103(a) as obvious over Schmid et al (US 5,985,125).

Schmid et al teach multilayer nacreous pigments and their use in abstract and claim 1.

Pigment layers of Mica, TiO<sub>2</sub>, SiO<sub>2</sub> or Al<sub>2</sub>O<sub>3</sub> and a metal are taught in claims 1, 6, 7, 12 and 21.

The recited metal oxides possess the instant refractive indices inherently since metal oxides are

same. Plastics containing said pigments are inherently laser-markable, and the preamble alone has

little probative value.

Thus, the instant invention lacks novelty.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tae H. Yoon whose telephone number is (703) 308-2389. The

examiner can normally be reached on Monday to Thursday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

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Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

THY/May 6, 2003

Tack JOON
TAE H. YOON

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